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10/521,247	06/24/2005	Tetsujiro Kondo	450100-04680	8523
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HA, DAC V				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/521,247

**Applicant(s)**

KONDO ET AL.

**Examiner**

Dac V. Ha

**Art Unit**

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 9-14, 17 and 24-38 is/are rejected.
- 7) ☒ Claim(s) 4, 6-8, 15, 16 and 18-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 28-29, 31-38, 1-3, 9-13, 24-27** are rejected under 35 U.S.C. 102(e) as being anticipated by Cudak et al.(US 6,801,512) (hereafter Cudak).

**Re claim 28**, Cudak discloses the claimed subject matter as follows:

"acquiring means for acquiring from the transceiver quality-improving data for improving the quality of decoded voice data obtained by decoding coded voice data" (Fig. 16; elements 1602, 1604; col. 10, lines 34 – 42, 49-52; col. 11, lines 18-26, 51-56; that is, the base transceiver station (BTS) receives and processes the recently-measured channel and interference information for subsequently improving the transmission to the mobile station (MS), which decoding the coded data; further, since the Cudak relates to a mobile phones system, the decoding data is voice data; also, "quality-improving data" is any information received by the BTS transceiver for subsequently improving the transmission from the transceiver);

"storage means for storing the quality-improving data acquired by the acquiring means in association with specifying information for specifying the transceiver" (Fig. 16,

element 1608; col. 10, lines 37-58, 42-43, 46-53, 66-67, wherein the “specifying information” is the identifier for identifying the preferred cell site (BTS) to be used);

“supply means for supplying the quality-improving data stored in the storage means to the transceiver specified by the specifying information” (Fig. 16, element 1604; col. 10, lines 47-53).

**Re claim 29**, Cudak further implies the teaching of the claimed subject matter:

“wherein the acquiring means further acquires a parameter concerning the coding and decoding performed by the transceiver and a parameter concerning the transmission and reception performed by the transceiver, the storage means further stores the parameter concerning the coding and decoding and the parameter concerning the transmission and reception acquired by the acquiring means in association with the specifying information for specifying the transceiver, and the supply means further supplies the parameter concerning the coding and decoding and the parameter concerning the transmission and reception stored in the storage means” in col. 11, lines 50-58 in that, the transceiver of the BTS acquires the channel and interference information, which is utilized to determine parameter concerning coding and decoding. In other words, Cudak acquires the quality-improving data includes acquiring parameters concerning the coding, decoding, transmission and reception performed by the transceiver.

**Re claim 31**, see corresponding apparatus claim 28.

**Re claims 32, 33**, see corresponding apparatus claim 28 and also, col. 11, lines 16-19.

**Re claim 34**, Cudak discloses:

"acquiring means for acquiring a feature concerning the transmission and reception of coded voice data from the transceiver" (Fig. 16; elements 1602, 1604; col. 10, lines 34 – 42, 49-52; col. 11, lines 18-26, 51-56; wherein the channel and interference teaches "feature concerning the transmission and reception");

"calculating means for calculating quality-improving data for improving the quality of decoded voice data obtained by decoding the coded voice data based on the feature acquired by the acquiring means" (Fig. 18, element 1804; col. 11, lines 50-57);

"supply means for supplying the quality-improving data calculated by the calculating means to the transceiver from which the feature is acquired" (Fig. 16, element 1604; col. 10, lines 47-53).

**Re claim 35**, Cudak further discloses "storage means for storing the quality-improving data calculated by the calculating means in association with specifying information for specifying the transceiver, wherein the supply means supplies the quality-improving data stored in the storage means to the transceiver from which the feature is acquired" in Fig. 16, element 1608; col. 10, lines 37-58, 42-43, 46-53, 66-67; wherein memory 1608 stores and provides all related information controlling the transceiver.

**Re claims 36-38**, see corresponding apparatus claim 34 and also, col. 11, lines 16-19.

**Re claim 1**, Cudak discloses the followings:

"coding means for coding the voice data and for outputting coded voice data" (col. 2, line 33; wherein the Cudak relates to a mobile phones system, therefore data is voice data";

"transmitting means for transmitting the coded voice data; (Fig. 16, element 1602"

"parameter storage means for storing a parameter concerning the coding performed by the coding means and a parameter concerning the transmission performed by the transmitting means in association with specifying information for specifying a receiving side that receives the coded voice data" (Fig. 16, element 1608; col. 10, lines 37-58, 42-43, 46-53, 61-67; col. 11, lines 35-36, 52-57; col. 6, lines 16-18, wherein the "specifying information" is the identifier for identifying MS; that is, when the BTS knows that it is selected as the preferred cell site, it must know the desired MS to transmit to using the MS identifier);

"parameter setting means for selecting and setting, based on the specifying information, the parameter concerning the coding performed by the coding means and the parameter concerning the transmission performed by the transmitting means stored in the parameter storage means" (col. 5, lines 38-40; col. 11, lines 50-58, col. 12, lines 2-10).

**Re claim 2**, Cudak further discloses “wherein the parameter concerning the coding includes a coding method and a codebook used for the coding” in col. 11, line 53; col. 7, lines 50-51.

**Re claim 3**, Cudak further discloses “wherein the parameter concerning the transmission includes a modulation method and the amount of transmission data per unit time” in col. 11, lines 52-53.

**Re claims 9-11**, see corresponding apparatus claim 1 above.

**Re claim 12**, Cudak discloses:

“receiving means for receiving the coded voice data” (col. 7, lines 37-39; Fig. 17, element 1702);

“decoding means for decoding the coded voice data received by the receiving means” (col. 11, line 26);

“parameter storage means for storing a parameter concerning the reception performed by the receiving means and a parameter concerning the decoding performed by the decoding means in association with specifying information or specifying a transmitting side that transmits the coded voice data” (Fig. 17, element 1708; col. 11, lines 16-27, col. 10, lines 37-40, 66-67, wherein the MS identify which BTS it wants to subsequently transmit back to the MS utilizing the BTS identifier);

“parameter setting means for selecting and setting, based on the specifying information, the parameter concerning the reception performed by the receiving means

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and the parameter concerning the decoding performed by the decoding means stored in the parameter storage means" (col. 5, lines 38-40; col. 11, lines 19-36, 50-58, col. 12, lines 2-10; wherein the selecting and setting occurs at the BTS in response to acknowledgment from the MS after decoding).

**Re claim 13**, Cudak further discloses "wherein the parameter concerning the decoding includes a coding method used for the coding performed by the transmitting side that transmits the coded voice data and a codebook used for the coding" in col. 11, line 53; col. 12, lines 1-8; col. 7, lines 50-51.

**Re claims 24-26**, see corresponding apparatus claim 12 above.

**Re claim 27**, see combination of claims 1 and 12 above.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 30, 5, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cudak in view of Needham et al. (US 5,764,699) (hereafter Needham).

**Re claim 30**, Cudak discloses almost all claimed subject matter in claim 30, as stated above, except for claimed subject matter wherein the storage means further stores initial values of the quality-improving data, a parameter concerning the coding



and decoding, and a parameter concerning the transmission and reception in association with information concerning the transceiver, and the supply means supplies the initial values stored in the storage means to the transceiver in a case the quality-improving data, the parameter concerning the coding and decoding, and the parameter concerning the transmission and reception associated with the specifying information do not exist".

Needham, in the same field of endeavor, discloses method for adaptively selecting appropriate modulation technique base on channel quality (Abstract; Fig. 3; col. 6, line 61 to col. 7, line 26). More particularly, Needham discloses selection an initial modulation technique for transmission (col. 6, lines 63-64). After that, when the channel quality becomes available, Needham adaptively selects appropriate modulation technique based on channel quality.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the such concept of providing an initial modulation technique when channel quality is not available, as taught by Needham, into Cudak, and also including providing initial values for other parameters as well since Cudak adapts a plurality of parameters, to provide an initial values for the system to work with, i.e. when the system first turns on.

**Re claims 5, 17**, similar analogy for that of claim 30 above applied for the teaching of initial values of the paramter.

5. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cudak in view of Womack et al. (US 5,982,819) (hereafter Womack).

**Re claim 14**, Cudak discloses almost all claimed subject matter in claim 14, as stated above, except for "wherein the parameter concerning the reception includes a demodulation method corresponding to a modulation method used for transmitting the coded voice data by the transmitting side". Womack, in the same field of endeavor, discloses such claimed subject matter in col. 7, lines 9-16; col. 9, lines 6-15. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the teaching of using demodulation method corresponding to modulation method used for transmission, taught in Womack, into Cudak to ensure demodulation at the receiver as conventional wisdom.

#### ***Allowable Subject Matter***

6. Claims 4, 6-8, 15-16, 18-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hsu et al. (US 6,901,046).

Oberhotzer et al. US 5,465,399)

Schramm et al. (US 6,208,663)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 4/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dac V. Ha/  
Primary Examiner, Art Unit 2611